

What Is Claimed Is:

1. In a communication system including at least one base station and at least one remote station and employing transmit power control, a method for controlling the energy at which a transmit power control command is transmitted, the method comprising the steps of:
5 determining how important it is that the transmit power control command is correctly received; and
setting the energy at which the transmit power control command is transmitted based on this determination.

10 2. The method of claim 1, wherein the step of setting the energy comprises setting the power at which the transmit power control command is transmitted.

15 3. The method of claim 1, wherein the step of setting the energy comprises adjusting the coding of the transmit power control command.

20 4. The method of claim 1, wherein the step of determining how important it is that the transmit power control command be received comprises determining the difference between a measured quality of the received signal and a reference, wherein the difference indicates how important it is that the transmit power control command be received.

5. The method of claim 4, further comprising determining whether the difference is substantially zero.

25 6. The method of claim 5, wherein if the difference is substantially zero, the step of setting the energy includes decreasing the energy at which the transmit power control command is transmitted.

30 7. The method of claim 6, wherein the energy is decreased by an amount that is a function of the difference.

8. The method of claim 5, wherein if the difference is not substantially zero, the step of setting the energy includes increasing the energy which the transmit power control command is transmitted.

9. The method of claim 8, wherein the energy is increased by an amount that is a function of the difference.

10. The method of claim 1, wherein the transmit power control is performed for the uplink direction, and the steps are performed in a base station.

11. The method of claim 1, wherein the transmit power control is performed for the downlink direction, and the steps are performed in a remote terminal.

12. In a communication system including at least one remote station and at least one base station, an apparatus for controlling the energy at which a transmit power control command is transmitted, comprising:

means for determining how important it is that the transmit power control command is correctly received; and

means for setting the energy at which the transmit power control command is transmitted based on this determination.

13. The apparatus of claim 12, wherein the means for setting the energy sets the power at which the transmit power control command is transmitted.

14. The apparatus of claim 12, wherein the means for setting the energy adjusts the coding of the transmit power control command.

15. The apparatus of claim 12, wherein the means for determining how important it is that the transmit power control command is received determines the difference between the measured quality and a reference quality, the difference indicating how important it is that the transmit power control command be received.

16. The apparatus of claim 15, further comprising means for determining whether the difference is substantially zero.

17. The apparatus of claim 16, wherein if the difference is determined to be substantially zero, the energy at which the transmit power control command is transmitted is decreased.

18. The apparatus of claim 17, wherein the energy is decreased by an amount that is a function of the difference.

19. The apparatus of claim 16, wherein if the difference is not substantially zero, the energy at which the transmit power control command is transmitted is increased.

20. The apparatus of claim 19, wherein the energy is increased by an amount that is a function of the difference.

21. The apparatus of claim 12, wherein the transmit power control is performed for the uplink direction, and the apparatus is included in a base station.

22. The apparatus of claim 12, wherein the transmit power control is performed for the downlink direction, and the apparatus is included in a remote terminal.